IROC Phase II

Concept of Operations/Location Study

IROC Funding Strategy White Paper

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1. INTRODUCTION

Developing a long-range plan for funding the Interagency Regional Operation Center (IROC) facility will encompass several tiers of consideration:

- First – Capital costs for constructing the center.
- Second – Implementation costs for agencies to migrate.
- Third – Funding for IROC operations, maintenance, and expansion.

A multi-agency facility such as IROC brings about several funding considerations. IROC partners have already stated they do not want a 'tenant-landlord' arrangement for collocation; however, not all partners may be able to fund initial capital costs for facility construction out of current local or regional budgets. With the timeframe for IROC implementation (currently 2010-2011), there is not a programmed project to fund the construction and implementation of the IROC facility, although Idaho Transportation Department (ITD) has several Operations Center projects within the current State Transportation Improvement Program (STIP).

As the IROC Concept of Operations has evolved, a core group of partners that intend to collocate has emerged. These include ITD, Ada County Highway District Congestion Management, and the State Emergency Medical Services (EMS) Bureau (including the State EMS Communications Center). Each of these agencies plays a critical role in traffic operations, incident management, and traveler information. Coordination with external partners – including 911, local and state public safety, other ITD districts and other states – are an important consideration from a functional perspective, but the funding component will focus on the core occupying partners.

The purpose of this white paper is to begin identifying funding issues, timeframes and strategies that IROC partners will need to consider. Sections include a discussion on current agency funding issues and constraints, brief case study references to other multi-agency TMC funding strategies, and potential IROC funding scenarios for the partners to consider.

2. COST OF FACILITY

A summary of the space allocation by potential collocating agency is provided in **Table 1**. The percentage of total square footage was used to calculate the cost share by agency for construction, additional costs after construction, and the total costs for which each agency is responsible is as shown in **Table 2**.

Table 1 – Space Allocation by Agency

Agency	Dedicated Sq-ft in Buildings (including Shop for ITD and ACHD)	Shared Sq-ft in Main Building	Total Sq-ft	% of Total Sq-ft
ITD	34,525	3,337	37,892	42%
ACHD	12,655	6,273	18,928	21%
StateComm	4,370	5,072	9,442	10%
EMS Bureau	11,270	13,078	24,348	27%
Total	62,820	27,760	90,580	100%

Table 2 – Cost Share by Agency

Category	Description	%	Cost
Construction	Operation Center - Two Story (ITD-12%, ACHD-23%, StateComm-18%, EMS Bureau-47%)		$15,454,380
	Shop Building (ITD-81%, ACHD-19%)		$5,188,316
	Site Work (ITD-42%, ACHD-21%, StateComm-10%, EMS Bureau-27%)		$4,346,436
	Subtotal Construction		$24,989,132
Mark Ups	Contingency	10%	$2,498,913
	General Conditions	6%	$1,649,283
	Overhead and Profit	6%	$1,748,240
	Bonds and Insurance	1.5%	$463,284
	LEED	8.0%	$2,507,908
	Subtotal Mark Ups		$8,867,627
Subtotal Construction			**$33,856,759**
Adjustments	Inflation in 2 years	4%	$2,708,541
	LSI Index for Boise, Idaho	-16%	-$5,417,081
	Total Adjustments		-$2,708,541
Total Construction			**$31,148,218**
Additional Costs	Video Wall		$2,000,000
	Design of Facility	10%	$3,114,822
	Furniture/Workstations	5%	$1,557,411
	Total Additional Costs		$6,672,233
Total IROC Costs (Construction + Additional)			**$37,820,451**
Per Agency Total Costs	ITD		$13,259,132
	ACHD		$8,049,943
	StateComm		$4,613,437
	EMS Bureau		$11,897,939

3. CURRENT PARTNER FUNDING ISSUES

3.1 Idaho Transportation Department

ITD is responsible for funding statewide transportation enhancements, construction, maintenance and operations. ITD Headquarters and Districts rely on state and federal funding sources to fund day-to-day operations, as well as future capital improvements. State funds come from fuel surcharges and taxes, vehicle registrations, drivers license fees, truck registration and permits, fines and penalties (commercial vehicle violations) as well as other sources. These and other funds go into a Highway Distribution Account which then funds State Highway maintenance and operations (57%) law enforcement (5%) and local government transportation needs (38%).

Combined with federal funding sources (National Highway System – NHS, Surface Transportation Program – STP and Congestion Mitigation and Air Quality Improvement – CMAQ), this makes up the majority of ITD's available funding for transportation system operations, maintenance and construction.

ITD has identified a significant funding shortfall ($200 million) over the next 30 years in terms of available funds versus what is needed to adequately operate and maintain its transportation infrastructure throughout the state. A proposition is before the Idaho Governor which seeks to increase fuel tax and vehicle registration to raise additional revenue for ITD maintenance. Historically, Idaho has not been receptive to new taxes; and although the Governor expressed reluctance early in his term, there is now acknowledgement that new revenue is needed to meet the growing demands of the state's transportation network.

At present, the IROC facility is not part of the STIP or any regional Transportation Improvement Program (TIP) at a priority level or at a funding amount that would meet the estimated capital requirements. ITD's *Horizons* (2007) program has identified a Regional Operations Center as a 'near-term' horizon, which would be 6-10 years from the current STIP. The ITD Board reviews these horizon projects for priority in the next STIP. Thus far in the planning process, the ITD Board has been supportive of continued planning for IROC and their support will be essential to the continued momentum of IROC, as well as any major funding decisions involving state or federal funds.

3.2 State EMS/Communications

State EMS is a unique partner among collocated transportation operations. Their link to and role with ITD is unprecedented in other multi-agency operational environments. As an EMS Bureau, this sister state agency is eligible for funding and funding sources that are not typical in the traditional federal transportation funding strategies. This also comes with several challenges in that the specific funds to support EMS functions may not be applicable for an IROC environment. Furthermore, federal funds for State EMS typically prohibit the use of that funding for capital costs, and those funds are dedicated solely to operations.

State EMS has a dedicated funding source in that they are allocated a portion of driver license and motor vehicle registration fees. This mechanism was established by the Idaho Legislature more than 15 years ago, and the amounts have been unchanged since. One option would be a temporary increase to the existing amount that State EMS receives; however, for the driver license fees, State EMS shares a funding split with three other entities and programs (County, Driver's Education and Motorcycle Safety) in the funding chain. Any increase to the State EMS portion would mean a decrease in funds going to those other programs.

3.3 Ada County Highway District

ACHD has primarily operational responsibility for traffic signals as well as freeway management infrastructure in the Treasure Valley (through an operational agreement with ITD). In doing so, ITD supplements ACHD's current operations costs through an established funding agreement. As the region's congestion management agency, ACHD relies heavily on CMAQ funding for a significant portion of the operations and maintenance costs associated with the county's traffic signals and monitoring/detection equipment. ACHD manages both the arterial and freeway systems from its transportation management center, which is at capacity. In addition to ITD funds, ACHD receives a significant portion of its funding through the Community Planning

Association of Southwest Idaho (COMPASS) TIP – this includes operational as well as capacity/capital improvements.

ACHD's current Five Year Work Plan (2008-2012) includes a TMC expansion project in the amount of $720,000, but does not include a definitive year. Financial requirements for ACHD were not yet determined as of the adoption of the most recent five-year plan (February, 2007).

4. OTHER TMC FUNDING STRATEGIES

This section describes funding strategies and approaches that have successfully been used by other multi-agency transportation management/operations centers. It is important to see the range of funding strategies that other regions have utilized. Some of these centers – such as the San Antonio and Houston facilities – are 15 years old, so cost data for the initial construction is limited, and what information is available is outdated. Newer facilities, such as those in Austin, Northern Virginia, and Manatee County point to a "new local revenue" model whereby local bonds have been utilized to generate significant amounts of capital within a few years' time. None of the operations centers profiled here came about as a result of federal earmarks, although several of the state DOT funding portions were federal funds.

4.1 Austin Combined Transportation and Emergency Communications Center (CTECC) – Austin, TX

The Austin CTECC includes four primary operational partners (City of Austin, Travis County, Texas DOT and Capital Metro Transit Authority). The CTECC facility is a stand-alone, multi-agency operations center that includes 911 dispatch (for City and County police/fire/EMS), freeway management, transit dispatch, and also houses the county's Emergency Operations Center. The City of Austin is the majority tenant (63%) and was responsible for funding a significant portion of the initial capital costs. The City was able to raise revenue through a local bond. Other partners were responsible for funding their portion based on a 'fair-share' space allocation formula. For TxDOT's portion, a combination of state/federal funds were used, but TxDOT did not obtain any new federal funds (such as a grant or earmark) to put toward the CTECC initial construction – it used its allocation for the TxDOT Austin District.

4.2 NOVA Public Safety Transportation Operations Center (PSTOC) - Fairfax County, Virginia

Fairfax County is leading the development of a new state-of-the-art multi-agency Public Safety Transportation Operations Center (PSTOC). Agencies located at the PSTOC will include the County 9-1-1 call center, County Emergency Operations Center, VDOT Northern Virginia Smart Traffic Center and Smart Traffic Signal System, and Virginia State Police.

PSTOC was funded through a bond referendum in Fairfax County that included $29 million to support the costs associated with the Facility. Additional funds came from the County general funds, $15 million, are also allocated for this facility. PSTOC is under construction, and set to become operational in 2007. Its estimated cost is $122.5 million — including $102.5 million for the county functions and $20 million for the State Police and VDOT portions. PSTOC is the first phase of a multi-agency development on 130 acres, with planned construction activities through 2025. PSTOC is part of a larger complex that includes a transit operations center, police forensics center and State Police Headquarters. PSTOC is the first entity in the complex to be developed.

4.3 TranStar – Houston, TX

The TranStar partnership in Houston has been in place since the early 1990's, and an operations and funding agreement in place since 1994. The partnership consists of the following core members that occupy the TranStar facility: TxDOT, Harris County, City of Houston and the Metropolitan Transit Authority (METRO). When TranStar was established, they estimated costs for construction of the control facility to be $11M; actual costs were $13+M. The initial agreement split the funding responsibility based on a 'fair-share' allocation, with TxDOT responsible for 64%, Transit at 23% and the City and County combined were 13%. Both TxDOT and METRO were able to apply federal funds for their portions; local funding came primarily from toll revenues.

4.4 TransGuide – San Antonio

The TransGuide partners include the Texas Department of Transportation, the VIA Metropolitan Transit and the City of San Antonio (public works, police, fire, emergency medical services). The TMC has been in operation for 12 years (established in 1995). In addition to the traffic management function, the TransGuide TMC also includes the regional the traffic management function, the TMC also possesses 911-interface with city police as well as a "LifeLink" network that enables communication between ambulances, TMC and hospitals for emergency responses. Private partners also some of the TransGuide space (Southwest Research and Texas Transportation Institute).

The funding allocation of the TMC was based on TMC utilization. The establishment of TMC was primarily funded by TxDOT, and other partnering agencies funded its individual construction cost of the space within the facility. TxDOT owns the building, and provides space to other partners, who are responsible for paying the costs of operating and maintaining their systems. The TMC project utilized funding from Interstate Maintenance funds. Although San Antonio was one of the 1996 Federal Highway Administration Model Deployment Projects, the TMC was already constructed; MDI funds went toward system development and integration enhancements, not for capital construction costs. Currently, the operations and maintenances cost of TMC is distributed across the partnering agencies with an estimate of 80% state funds and 20% local agency funds.

4.5 Frankfort, KY – Transportation Operations Center

The Transportation Operations Center in Frankfort began in 2002. It collects and disseminates traffic and highway incident information through various media to the traveling public in the Commonwealth of Kentucky. Information also comes from other partnering agencies: the state police, Kentucky Vehicle Enforcement and emergency operations. The Center is currently a collaboration of the following agencies: the Kentucky Office of Homeland Security (KOHS), the Kentucky State Police (KSP), the Kentucky Transportation Cabinet, the Kentucky Department of Corrections, the Kentucky Department of Military Affairs, Kentucky Vehicle Enforcement (KVE), the Bureau of Alcohol, Tobacco, Firearms and Explosives, the Federal Bureau of Investigation and the United States Department of Homeland Security (DOHS).

As there was no funding resource available at the initial phase, Federal CMAQ funding was pursued to get project started. Vehicle Miles Traveled (VMT) in air quality non-attainment areas in Kentucky was calculated and compared it to the statewide VMT to justify the eligibility for CMAQ funds. Other funding sources were implemented through earmarks, state matches and toll credits (Gas Tax).

4.6 Manatee County Emergency Operations Center, Florida

This new collocated emergency and transportation operations center in Bradenton, Florida collocates the signal system operations for the Cities of Bradenton and Sarasota, as well as the Counties of Bradenton and Sarasota with the Florida DOT. It also includes the Manatee County EOC and 911 Center. The County initiated a local bond to raise funds for the $55M facility. The facility was scheduled for completion in Summer 2007.

5. POTENTIAL FUNDING SOURCES FOR IROC INITIAL CAPITAL INVESTMENT

As demonstrated by the TMCs profiled in section three, there are a wide range of funding options; although it should be noted that in most cases, significant local funds (through dedicated state funding or by establishing a new revenue stream) were used for initial center construction and implementation costs. Regional or multi-partner transportation management and operations centers are typically funded through one or more approaches:

- Raise revenue needed for capital costs through bond funding or other tax;
- Combine various sources (typically combined federal such as earmarks, Interstate Maintenance as well as state); and
- Utilize state/regional/local sources, which applies primarily to gas tax, sales tax, toll credits or allocating money from the general fund.

With a center that is the magnitude of IROC, capital costs for the initial implementation may not be able to be funded through any existing local mechanisms. ITD and their partners will need to look at a range of potential funding options. Potential federal sources are shown in **Table 3.**

Table 3 – Sources of Federal Funds

Federal Funding Source	Eligibility Criteria IROC Satisfies	Federal Share	Special Provisions
SAFETEA-LU (next round, 2009-2010)			Federal earmark funds. Will require strong support from congressional delegation
Surface Transportation Program (STP)	Flexible funding for projects on any Federal-aid highway	80%	Can also be used for start-up and operations costs, excluding routine maintenance
National Highway System Program (NHS)	Flexible funding for improvements to rural and urban roads on the NHS	80%	Can be used for start-up and operations costs, (not routine maintenance).
Interstate Maintenance (IM)	See Special Provisions	90%	A state may transfer up to 50% of its IM apportionment to NHS, STP, or CMAQ apportionment
Congestion Mitigation and Air Quality Improvement (CMAQ)	Enhanced operations will reduce transportation-related emissions.	80%	Must be tied to direct impact on air quality. Start-up and operations costs limited to 3 years
Grant Anticipation Revenue Vehicles (GARVEEs)	Same as corresponding federal funding program for repaying bonds	Varies	State issues bonds in advance of federal funding availability and receives federal funds when debt service is due

Transportation Infrastructure Finance and Innovation Act (TIFIA)	Regionally significant intelligent transportation system project exceeding $15 million	Varies	Loan program designed to leverage substantial private co-investment on high-cost projects
State Infrastructure Bank	Increases efficiency of transportation investments	80%	Requires leveraging Federal resources by attracting non-Federal public and private investment

Of these federal sources, the most desirable funding options are the following:

Earmark in the next federal transportation legislation (next-gen SAFETEA-LU). The current legislation expires in 2009. The prior transportation legislation was extended by two years while the new SAFETEA-LU was being drafted and revised, so there is a strong likelihood that the next legislation may not be ready until 2010 or perhaps 2011. This may not fit well with IROC's goal of 2011 implementation, but could provide ITD and their partners time to garner support of Idaho's legislative representatives to support an earmark in the next federal transportation bill.

Surface Transportation Program funds. This is among the most flexible of the federal funds. Idaho's STP funding allotment is based on several factors, including lane miles of federal-aid highways, vehicle miles traveled, etc. Idaho, like many states, distributes STP funds across the different districts, so it is not likely that STP federal funds alone could support the initial capital funding requirements of the IROC facility. There is also an 80/20 federal/local match requirement.

National Highway System Program funds. Although typically used for roadway capital/improvements, a portion of NHS funds could be transferred into another funding category (such as STP, IM or CMAQ). In order for ITD to allocate NHS funds to the IROC facility, it would need to take funds away from other designations (such as corridor projects or district funding). NHS also has an 80/20 match requirement.

Congestion Mitigation Air Quality Program (CMAQ). There are some limitations with CMAQ funds, in terms of usage and timeframes. Idaho receives CMAQ funding, which is used for ITD functions, and ACHD is very dependent on CMAQ funds for its current operations. SAFETEA-LU has new requirements that States and MPOs are to give priority to projects and programs to diesel retrofits and other cost-effective emission reduction activities, and cost-effective congestion mitigation activities that provide air quality benefits. CMAQ also requires project evaluations to determine overall impact on air quality. Similar to the previous funding options, there is an 80/20 match requirement.

Remaining federal sources – TIFIA and the State Infrastructure Bank require public/private partnerships, and IROC to date has not identified a significant role for private sector. Furthermore, these are loan programs, not discretionary funds.

In 2005, Idaho implemented a "Connecting Idaho" GARVEE program to fund major highway/corridor enhancements. The Idaho Transportation Board recommended just under $1B in GARVEE bonds should be brought before the Idaho Legislature. The Legislature is approving the GARVEE funding in installments ($200M in 2006 and $250M in 2007). GARVEE funds are being used for widening and rehabilitation of major corridors throughout the state, including I-84, US-95, US-30 and Idaho Route 16. The primary purpose of the GARVEE program in Idaho was to accelerate these capacity and construction projects. In order to utilize GARVEE funds, ITD and the ITD Board would need to establish justification for diverting funds from roadway/capacity enhancements to fund construction and implementation of the operations center.

6. IROC FUNDING SCENARIOS AND APPROACHES

Based on the available funding mechanisms and approaches, **Table 4** represents the scenarios that could be used.

Table 4 – IROC Funding Strategies

Strategy 1	ITD funds initial IROC capital costs; partners repay ITD over 10-year timeframe	$40M not currently in ITD STIP, so there would be a challenge for ITD to be able to identify the required capital within the next two to three years Next federal legislation may not be ready in 2009/2010; there is a risk in counting on federal funds for the entire capital amount within this short timeframe Would require partners to commit to 10-year repayment. Partners would be bound to this agreement. If new partners wanted to opt-in to the center a few years into operations, there would need to be a strategy for how new partners would affect the capital repayment strategy.
Strategy 2	ITD and State EMS present case to Idaho Legislature for lump sum state funding for facility, ACHD would need to identify local funding source for County portion.	Challenge in obtaining needed capital within the next two years May be in competition with other centers in Idaho as well as other infrastructure enhancements May require redirect of funds from other programs if Legislature cannot approve discretionary request County portion would require reducing funding from another program
Strategy 3	Temporarily increase existing revenue stream	May not be sufficient to fund entire capital cost Governor currently weighing options of increasing fuel tax and vehicle registrations to pay for current $200M shortfall for needed roadway maintenance ITD and State EMS are dependent on these funds for their operations; redirecting them to fund IROC would subtract from agency operations funds.
Strategy 4	Implement new revenue stream(s) to raise capital	There has been tremendous discussion at the Governor's Office in Idaho about the reality of a tax increase to fund the current ITD shortfall. These discussions are ongoing, but with the emphasis on funding needed maintenance and operations, it may be challenging to introduce a new major expenditure. Prior proposals tax increases for transportation improvements have not been successful in getting to the ballot. Revenue from tolls/user fees are not an option; these facilities are not in place on any corridors in Idaho.

Table 4 – IROC Funding Strategies Continued

Strategy 5	Focus on Federal funding opportunities, including the next federal legislation, grant funding, as well as potential partner federal funds (non DOT).	Congressional support would be needed for any earmarks in the next federal legislation. Timeframe of the next legislation is uncertain – likely timeframe is 2010/2011 Current grant funding environment is very competitive. The most recent federal grant fund program was through the Urban Partnership (September 2007), and awarded nearly $1B to a limited number of heavily populated areas. Federal focus is on funding programs that can demonstrate a significant reduction in congestion or mode shift.
Strategy 6	Develop a hybrid strategy that uses a combination of approaches	This strategy would utilize a range of approaches so as to not overburden one funding source in the near term. The challenge would be that each of these sources is somewhat limited; shifting any amount of current federal funding from an existing program will significantly debilitate ITD district operations as well as localized operations in the Treasure Valley Would require legislative approval to shift funds from an already programmed project (such as GARVEE) to meet with IROC planned implementation, which will be before the next legislation and before the next STIP and Compass TIP programming cycles.

7. DEPENDENCIES AND CRITICAL ACTIONS

IROC marks a substantial investment on the part of ITD and its partners. Elevating the priority of such a significant operations enhancement amid competing priorities aimed at capacity, maintenance and other capital roadway improvements will remain a challenge for the IROC partners. Fiscal and resource constraints in the near-term will require partners to examine a range of options in order to establish the initial capital requirements for the IROC facility in the desired timeframe.

Diverting already stretched funds from current allotments of NHS, Interstate Maintenance or CMAQ was not well received by local agencies and ITD District staff. These funding mechanisms are critical to day-to-day operations. Raising new revenue through taxes, although not a popular decision, may very well be in Idaho's future to begin addressing the critical shortfall. The initial intent of the discussions of potential tax increases to address ITD funding shortfalls was to focus on maintaining key corridors.

ITD will need to work closely with the Governor and Legislature so as not to potentially exclude IROC from being eligible for funds received from any tax increases. (It is important to note that nothing has been drafted or put forward to the Legislature for a tax increase).

One key challenge at the regional and state level is elevating the priority of IROC within the established programming processes. IROC is competing with capacity improvements in both the Idaho STIP as well as the COMPASS TIP. This 'competition' is not unique to Idaho; numerous growing areas are struggling with similar challenges in terms of elevating operations or multimodal needs above much needed capacity or critical maintenance programs.

Significant capital will be required to implement IROC within the identified three to four year timeframe, and the Idaho Legislature will be a key part of that funding strategy. Whether through re-

allocating existing funding streams or increasing current revenue sources through tax increases, outreach to Idaho's legislative members will need to be a high priority for IROC partners. A focused strategy that includes benefits and justification demonstrates need as well as identifies IROC operational functions will be an important part of that outreach.

The next round of Federal transportation legislation will likely begin in earnest following the 2008 elections. Federal earmarks could provide a substantial portion of the needed funding for IROC to off-set local funding needs, but in order to obtain these earmarks, it will require Idaho Congressional representatives to serve as advocates for IROC in the drafting and review process. Idaho does not currently have a representative on the Transportation Committee of the US Congress. In addition to local legislators, ITD and its partners need to reach out to Idaho's federal legislative representatives to begin drafting requests for earmark funds in the next federal transportation legislation. Earmarks will be coming under significant scrutiny at the federal level; however, with the efforts to date on the Justification Analysis and Concept of Operations, there is a very strong case to demonstrate good use of federal funds in supporting IROC.